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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,563	08/15/2003	Robert Bland	2003P10377US	6623

7590 09/22/2005

Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER

KIM, TAE JUN

ART UNIT	PAPER NUMBER
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3746

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,563

Applicant(s)

BLAND ET AL.

Examiner

Ted Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08/11/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 5,7-10 and 13-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,11 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 08/15/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of the species of Figs. 6A, 6B in the reply filed on 8/11/05 is acknowledged. Claims 1-4, 6, 11-20 have been indicated as reading on the disclosed species. However, claims 13-20 do not read on the elected species but rather read on the embodiments of Figs. 7 or 8.
2. Claims 5, 7-10, 13-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 8/11/05.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

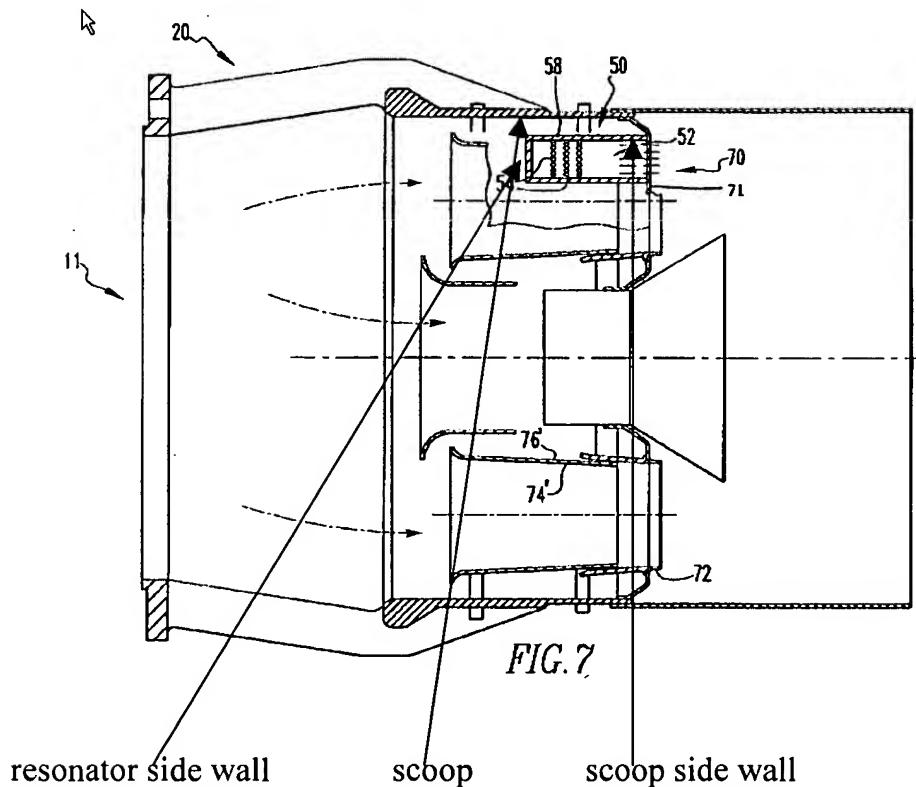
4. Claims 1-3, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hussey (3,169,367). Hussey teaches a resonator assembly (the apparatus of Hussey will inherently have a resonance frequency and thus perform as a resonator at some condition) comprising: a resonator including a plate 63 having a plurality of openings therein and at least one side wall 39 extending from the periphery of the plate; and a scoop 57 including a top plate and at least one side wall 58 or 21 extending substantially perpendicularly therefrom, the at least one side wall of the scoop attached to the resonator such that the

scoop is disposed above the resonator and such that the top plate substantially overhangs the plate; wherein the scoop includes one side without a side wall (for B) so as to provide an opening into a space defined between the scoop and the resonator plate; whereby the scoop captures a passing fluid B so as to substantially equalize the pressure impinging on the resonator plate; the at least one side wall 39 of the resonator extends substantially perpendicularly from the resonator plate; the at least one side wall of the scoop is attached to the resonator by one of *welding* or *brazing* (product by process limitations where the process is given little patentable weight); the resonator and scoop include an axial length and a circumferential length, wherein the axial length is greater than the circumferential length; the resonator and scoop include an axial length and a circumferential length, wherein the circumferential length is greater than the axial length.

5. Claims 1-4, 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Sattinger et al (6,530,221). Sattinger et al teach a resonator assembly (Fig. 7 or Fig. 8) comprising: a resonator 50 which is disposed on the outer surface 76' of 72 (col. 5, lines 6+) and including a plate having a plurality of openings 54 therein and at least one side wall (left side) extending from the periphery of the plate; and a scoop including a radially outer top plate and at least one side wall (right) extending substantially perpendicularly therefrom, the at least one side wall of the scoop attached to the resonator such that the scoop is disposed above the resonator and such that the top plate substantially overhangs the plate; wherein the scoop includes one side without a (left) side wall so as to provide an opening into a space defined between the scoop and the resonator plate; whereby the

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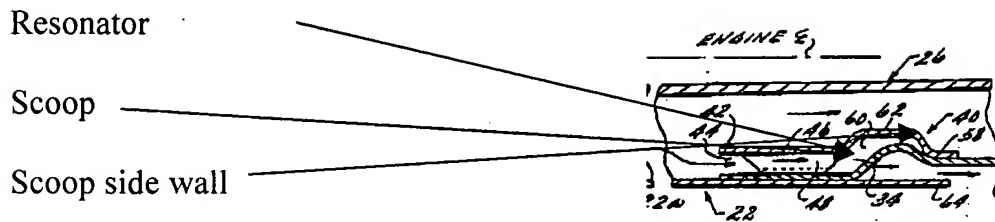
scoop captures a passing fluid so as to substantially equalize the pressure impinging on the resonator plate; the at least one side wall of the resonator extends substantially perpendicularly from the resonator plate; the at least one side wall of the scoop is attached to the resonator by one of welding or brazing (col. 4, lines 64+); the top plate of the scoop and the resonator plate are spaced substantially equidistant; the resonator and scoop include an axial length and a circumferential length, wherein the axial length is greater than the circumferential length; the resonator and scoop include an axial length and a circumferential length.



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6. Claims 1-3, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Ekstedt (3,793,827). Ekstedt teaches a resonator assembly (the apparatus of Ekstedt will inherently have a resonance frequency and thus perform as a resonator at some condition) comprising: a resonator including a plate having a plurality of openings 34 therein and at least one side wall 46 extending from the periphery of the plate; and a scoop 62 including a top plate 62 and at least one side wall extending substantially perpendicularly therefrom, the at least one side wall of the scoop attached to the resonator such that the scoop is disposed above the resonator and such that the top plate substantially overhangs the plate; wherein the scoop includes one side without a side wall 44 so as to provide an opening into a space defined between the scoop and the resonator plate; whereby the scoop captures a passing fluid so as to substantially equalize the pressure impinging on the resonator plate; the at least one side wall of the resonator extends substantially perpendicularly from the resonator plate; the at least one side wall of the scoop is attached to the resonator by one of *welding* or *brazing* (product by process limitations where the process is given little patentable weight); the resonator and scoop include an axial length and a circumferential length, wherein the circumferential length is greater than the axial length.

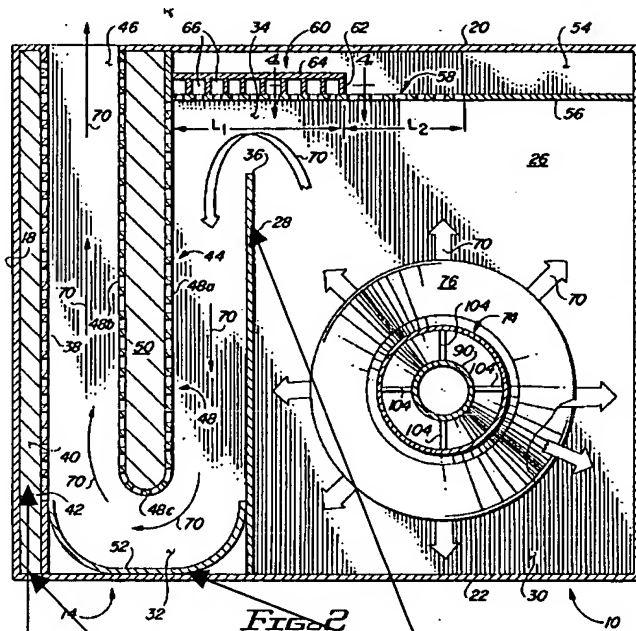
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7. Claims 1-4, 11, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Sams et al (6,106,276). Sams et al teach a resonator assembly comprising: a resonator including a plate 24 having a plurality of openings therein and at least one side wall 28 extending from the periphery of the plate; and a scoop either 80 or 48 including a top plate and at least one side wall either 82 or 25/28 extending substantially perpendicularly therefrom, the at least one side wall of the scoop attached to the resonator such that the scoop is disposed above the resonator and such that the top plate substantially overhangs the plate; wherein the scoop includes one side without a side wall so as to provide an opening into a space defined between the scoop and the resonator plate; whereby the scoop captures a passing fluid so as to substantially equalize the pressure impinging on the resonator plate; the at least one side wall of the resonator extends substantially perpendicularly from the resonator plate; the at least one side wall of the scoop is attached to the resonator by one of *welding* or *brazing* (product by process limitations where the process is given little patentable weight); the top plate of the scoop and the resonator plate are spaced substantially equidistant; the resonator and scoop include an axial length and a circumferential length and wherein the circumferential length is greater

than the axial length. The relative lengths depend on which part is chosen for its dimension e.g. the length of 80, 48, or 24, can each be used as an axial length and the circumferential length can be that of any of 80, 48, or 24. By selecting which of these parts is used, the apparatus has both of these relative relationships between the lengths.

8. Claims 1-4, 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Lyon et al (4,747,467). Lyon teaches a resonator assembly comprising: a resonator including a plate 38 having a plurality of openings therein and at least one side wall extending from the periphery of the plate; and a scoop 28 including a top plate and at least one side wall extending substantially perpendicularly therefrom, the at least one side wall of the scoop attached to the resonator such that the scoop is disposed above the resonator and such that the top plate substantially overhangs the plate; wherein the scoop includes one side without a side wall so as to provide an opening into a space defined between the scoop and the resonator plate; whereby the scoop captures a passing fluid 70 so as to substantially equalize the pressure impinging on the resonator plate; the at least one side wall of the resonator extends substantially perpendicularly from the resonator plate; the at least one side wall of the scoop is attached to the resonator by one of *welding* or *brazing* (product by process limitations where the process is given little patentable weight; the top plate of the scoop and the resonator plate are spaced substantially equidistant; the resonator and scoop include an axial length and a circumferential length, wherein the axial length is greater than the circumferential length.



Resonator resonator side wall scoop scoop side wall

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 3, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the above applied prior art. The above applied prior art teach the structural features and some may not specifically teach the use of brazing or welding. However, this fastening technique is utterly conventional for combustor and/or resonator configurations and would have been obvious to one of ordinary skill in the art to employ as conventional

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fastening techniques employed in the art. As for the spacing between the top plate and resonator plate of between 1 to 2 mm, employing this spacing is regarded as an obvious matter of finding the workable ranges in the art. It would have been obvious to one of ordinary skill in the art to employ the claimed ranges as an obvious matter of finding the workable ranges in the art.


Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Ted Kim whose telephone number is 571-272-4829. The Examiner can be reached on regular business hours before 5:00 pm, Monday to Thursday and every other Friday.

The fax numbers for the organization where this application is assigned are 571-273-8300 for Regular faxes and 571-273-8300 for After Final faxes.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Thorpe, can be reached at 571-272-4444.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist of Technology Center 3700, whose telephone number is 703-308-0861. General inquiries can also be directed to the Patents Assistance Center whose telephone number is 800-786-9199. Furthermore, a variety of online resources are available at <http://www.uspto.gov/main/patents.htm>

	
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